

THE FACTS BEHIND JAPAN'S WHALE, DOLPHIN AND PORPOISE HUNTING



environmental investigation agency

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For decades the Japanese government has known that whale and dolphin products carry dangerously high levels of pollutants

Introduction

Many of the Japanese public are not aware of the extent to which cetaceans (whales, dolphins and porpoises) are hunted in their country. The Government of Japan allows more than 22 000 small whales, dolphins and porpoises to be legally killed each year in unregulated and unsustainable hunts around the coast of Japan. Japan is also involved in the hunting of great whales in direct contravention of the 1986 moratorium on commercial whaling. The majority of these, caught in the name of 'science', are hunted in an area prescribed as a sanctuary by the International Whaling Commission (IWC). To propagate this farce is not cheap, and the Government of Japan has

squandered hundreds of millions of dollars of taxpayers money on propaganda and on 'fisheries aid' to persuade countries to vote with Japan in the IWC.

Those who purchase 'whale meat' in Japan are being misled. Through mislabelling of products on the market, customers are being duped into buying meat from dolphins and porpoises when the product is labelled as 'whale'. To make matters worse these products may contain dangerously high levels of pollutants, often many tens of times higher than levels allowed by Japan's Food Sanitation Law. For decades the Japanese government has known that whale and dolphin products carry dangerously high levels of pollutants, but has failed to take any action to protect Japanese consumers.



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The Environmental Investigation Agency (EIA) is an independent, international campaigning organisation committed to investigating and exposing environmental crime. Since 1984, EIA has used pioneering investigative techniques all over the world to expose the impact of environmental crime and to seek lasting solutions. EIA's aims are to:

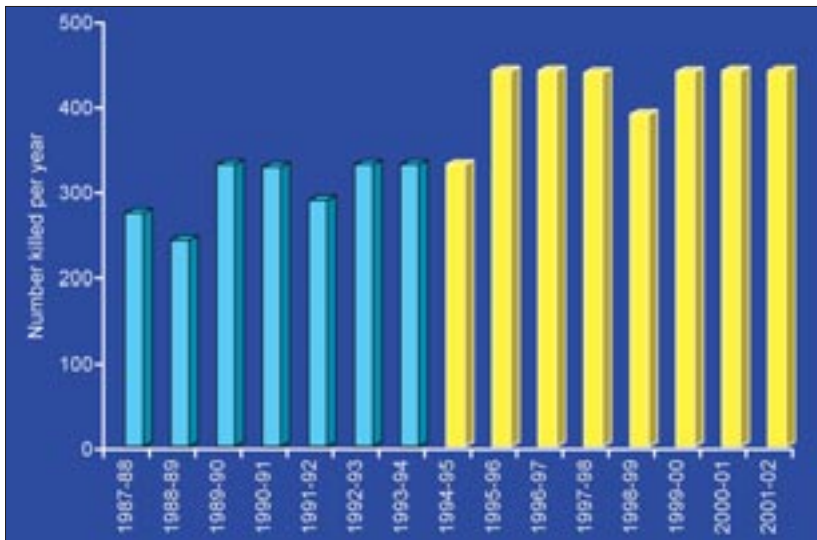
- Stop illegal trade in endangered species
- Gain lasting protection for species under threat
- Protect the shared environment of man and wildlife



The exploitation of cetaceans by Japan

Japan's large whale hunting

In 1987, Japan started to catch minke whales using a loophole in the 1946 International Convention for the Regulation of Whaling (ICRW) that allows countries to issue themselves special permits to catch whales for 'scientific purposes'. The International Whaling Commission (IWC) has subsequently passed 19 resolutions urging the Government of Japan not to issue such permits. These resolutions have been ignored, and Japan has continued to practice this thinly disguised commercial whaling, resulting in a total catch of more than 5000 minke whales between 1987 and 2001.¹ Most of the minke whales have been hunted in the Southern Ocean, despite the area having been designated as a sanctuary in 1994 after the IWC member states voted 23 to 1 in favour. The Government of Japan also operates a 'scientific research' hunt in the North Pacific, which took 638 minke whales between 1994 and 2001.² In May 2000, this hunt was extended to include



Bryde's whales and sperm whales. The Japanese government intends to extend the hunt both to include 50 additional minke whales from coastal waters and also to include sei whales, a species that has been listed as endangered by the World Conservation Union (IUCN) since 1975.³ Additionally Japan has indicated its intention to import whale meat from Norway in defiance of the current ban on international trade in great whale products implemented by the Convention for International Trade in Endangered Species (CITES)⁴.

Above: Japan's catches of Southern Ocean minke whales after the moratorium was implemented in 1986, yellow bars show catches of minke whales in the Southern Ocean after it was designated as a Sanctuary.

Hunting of small cetaceans

More than 400 000 dolphins, porpoises and small whales (collectively termed as 'small cetaceans') have been killed in Japanese waters in the last 20 years. The Government of Japan still allows 22 000 small cetaceans to be legally killed each year in unregulated and brutal hunts around the coast of Japan.⁵ This continued unsustainable exploitation of small cetacean populations is contrary to the repeated recommendations of the IWC and its Scientific Committee. It also contradicts the Government of Japan's frequently stated claim that it pursues a policy of 'sustainable utilisation of marine resources.'

Despite an IWC resolution in 2001 urging the Government of Japan to "halt the directed takes of Dall's porpoise until a full assessment by the Scientific Committee has been carried out,"⁶ up to 18 000 Dall's porpoise are killed in hand harpoon hunts in Japan every year, making it the largest direct kill of cetaceans worldwide. Information released by the Environmental Investigation Agency (EIA) in 1999 revealed a high proportion of mature and lactating females in

Left: Japan continues to hunt whales despite the internationally agreed moratorium.



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Above left and above centre: Bottlenose dolphins hunted in Futo harbour, Shizuoka, Japan. Above right: Pilot whales from a drive hunt in Taiji, Wakayama, Japan.

catches from the Sea of Japan and the Okhotsk Sea.⁷ The death of a lactating female inevitably leads to the death of her suckling calf, an additional mortality that is not accounted for in the catch quotas. Striped dolphins have also suffered from appalling over-exploitation. After monitoring a dramatic 30-year decline in catches, the IWC Scientific Committee reported that the coastal populations of striped dolphins had been so heavily exploited that catches had declined to less than 10% of those of the early 1960s without any corresponding fall in the hunting effort. In 1980 alone 16 000 animals were slaughtered in the annual hunt and they are now highly endangered, with some populations possibly already 'extinct'. In 1992, the Scientific Committee recommended that the Government of Japan implement an "interim halt in all direct catches of striped dolphins".⁸ This has never been initiated, and despite their endangered status, the Japanese government still sets annual quotas of 725 striped dolphins.

Below: The Dall's porpoise hunt is the largest direct kill of cetaceans in the world.

Species	Catches 1991-2000	Status
Dall's porpoise	148 701	Unknown, probably depleted
Striped dolphin	5940	Highly endangered
Spotted dolphin	2535	Unknown, probably depleted
Bottlenose dolphin	5224	Threatened
Risso's dolphin	3776	Unknown
Short-finned pilot whale	3245	Rare
False killer whale	364	Threatened
Baird's beaked whale	556	Rare

Conservation status^{9,10} and catch statistics¹¹ of small cetaceans hunted in Japan



Chemical pollution of the marine environment

There are two main classes of pollutants that are of greatest concern to the marine environment: persistent organic pollutants (POPs) and heavy metals.

- POPs are highly toxic, long-lived chemicals which tend to accumulate in fatty tissue.
- Heavy metals are non bio-degradable, have accumulative properties and long biological half lives. Many trace metals are harmful, but the metal of greatest concern is mercury, which can be transformed in aquatic environments into methylmercury, resulting in even greater toxicity.

The effects of marine pollutants

The pollution of the world's marine environment presents an increasing threat to marine species and it is widely accepted that environmental exposure to POPs such as polychlorinated biphenyls (PCBs) and dichlorodiphenyltrichloroethane (DDT) may cause immuno-suppression, reproductive failure, endocrine disruption, cancer and direct mortality in marine mammals. Cetaceans are particularly at risk as they are long-lived and slow breeding animals that feed at high trophic levels, leading to the accumulation of large amounts of these chemicals in their vital organs and fat stores. POPs can accumulate in the fatty tissues of mammals up to 70 000 times higher than the background environmental levels.¹² Cetaceans also transfer an extremely high proportion of the pollutants they are carrying to their offspring via maternal milk. This means that pollutant burdens would continue to threaten cetacean fitness through successive generations even if ambient environmental levels decreased markedly. Since 1981, the IWC has repeatedly recognised the threat posed to cetaceans by pollutants, and has stated that "persistent organic pollutants are seriously polluting the environment and its living resources including whales".¹³



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Above and left: Skin lesions on bottlenose dolphins in Florida.

Detrimental effects of pollutants on cetaceans

- A series of mass cetacean mortalities in the Western Mediterranean has been linked to elevated concentrations of organochlorides. Between 1990-92, over 1000 striped dolphins (*Stenella coeruleoalba*) died in a morbillivirus enzootic in the Western Mediterranean. Researchers found organochlorine (especially PCB) burdens in the affected dolphins to be two or three times higher than the general population before the outbreak.¹⁴
- Populations of Atlantic bottlenose dolphins (*Tursiops truncatus*) in Florida are displaying a growing number of skin lesions that are believed to be related to toxins present in the water. Nearly one third of the dolphins (around 500 individuals) have exhibited signs of skin disease. In addition, the dolphins suffer from hepatitis, meningitis and even cancer, conditions not normally seen in healthy dolphin populations.¹⁵
- Links between chemical pollution and cancer have been observed in beluga whales (*Delphinapterus leucas*) resident in the St. Lawrence Estuary, Canada. These belugas have been exposed to a range of industrial pollutants, the most notable being polycyclic aromatic hydrocarbons (PAHs) produced by local aluminium smelters. The population suffers from a high rate of cancer, the cause of which is thought to be related to PAHs.¹⁶ Organochlorine contamination is thought to be the major factor in the whales' inability to ward off opportunistic infections from mildly pathogenic organisms, thus preventing recovery of the population.¹⁷



Consumption of polluted cetacean products

In spite of Japan's Food Sanitation Law (*right*), the food that ends up on supermarket shelves is by no means guaranteed to be safe. Recently, 14 500 people in the city of Osaka became ill and one person died after drinking contaminated Snow Brand milk. This scandal was part of a chain of events leading to the liquidation of Snow Brand Foods.¹⁸ Despite this health scare, polluted foods continue to be sold openly throughout Japan. The Japanese government has known for several decades about the dangerously high levels of

Below: This bottlenose dolphin meat contained mercury levels of 22.5 ppm, 56 times over the legal limit for Japan.



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DNA identification	Pollution level in parts per million (ppm)		
	Mercury Whole basis	Methyl-mercury Whole basis	PCBs Whole basis
Mixed product	1.51	0.64	0.025
Not known	0.43	0.20	1.144
Pilot whale	9.38	4.16	0.884
Not known	11.86	8.96	0.353
Delphinid	2.17	2.02	0.181
Dall's porpoise	1.24	1.22	0.019
Delphinid	2.28	2.25	0.043
Delphinid	2.24	2.16	0.071
Mixed product	1.13	0.98	0.027
Bottlenose dolphin	22.50	10.88	0.030
Mixed product	1.34	1.08	0.018
Not known	0.60	0.02	2.846
Delphinid	0.65	0.06	0.076
Delphinid	1.54	1.26	0.754
Pilot whale	7.49	4.48	0.153
Risso's dolphin	14.93	1.32	0.220
Delphinid	2.19	1.72	0.072

Pollutant levels in small cetacean products purchased in Japan. Values in red indicate those in excess of Japan's permitted levels according to the Food Sanitation Law (mercury: 0.4 ppm, methyl-mercury: 0.3 ppm, PCBs: 0.5 ppm).

Food Sanitation Law of Japan (Law no. 233, December 24, 1947, last amended May 2000)

Article 4 – "No person shall sell, or handle, manufacture, import, process, use, prepare, store or display with intent to sell any food or additive given below:

(2) Those which contain or bear toxic or injurious substances or which are suspected to contain or bear these substances; provided, however that this provision does not apply to the cases which are prescribed by the Minister of Health, Labour and Welfare as not injurious to human health.

pollutants in cetacean products. Yet instead of implementing its own laws and imposing a ban on the sale of these products, it has embarked on a rigorous propaganda campaign aimed at increasing the consumption of cetaceans in Japan.

A series of recent investigations conducted by an international group of toxicologists from Japan, the US and the UK have revealed extremely high levels of pollutants in cetacean meat products. In one such analysis 40% of samples bought from Japanese supermarket chains in October 1999 contained toxic substances above Japanese advisory limits for mercury and selected pesticides (DDT and dieldrin). The concentration of mercury in one sample of dolphin liver was more than 500 times greater than levels allowed under Japan's Food Sanitation Law.¹⁹ The resulting food scare prompted two large supermarket chains, Daiei and Jusco (now AEON), to suspend their sales of small cetacean products and forced a temporary halt to the dolphin hunts. However these measures were only short term, and dolphin hunting and the sale of cetacean products in supermarkets resumed after media attention died down. In an analysis of cetacean products purchased by EIA in March 2001, all the 17 small cetacean samples exceeded the provisional Government permitted level for mercury and 14 of the 17 samples exceeded permitted levels for methylmercury. The permitted level for PCBs was exceeded in four of the 17 small cetacean products tested, and high residue levels of pesticides such as DDT and chlordane were also found.²⁰



Effects of pollutants on human health

The consumption of these highly polluted cetacean products can have serious negative effects on human health. The IWC has passed several resolutions calling for further research into this issue stating for example that “scientific evidence demonstrates that some communities may be faced with health problems arising from the high levels of organic contaminants and heavy metals present in those [cetacean] products in their diet”.²¹

Ingestion of methyl mercury can produce numbness or tingling in the extremities, sensory losses, loss of coordination and brain damage. In the unborn foetus, exposure can produce neurological developmental abnormalities in cognitive and motor functions.²² In severe cases, mercury ingestion can render the consumer comatose and result in death.^{23, 24}

PCB burdens in humans have been found to increase rates of melanomas, liver cancer, gall bladder cancer, biliary tract cancer, gastrointestinal tract cancer and brain cancer.²⁵ They can also disrupt hormone function²⁶ and the immune system.²⁷ Children exposed to PCBs in the womb can develop significant neurological and motor control problems, such as lowered IQ, as demonstrated by poorer performance on standardized memory, psychomotor and behaviour tests.²⁸

The Government of the Faroe Islands has recognised the health risks posed by the consumption of cetacean products since the late 1970s. In 1998 the Faroese Food and Environment Agency recommended that, due to the high levels of mercury and PCBs in pilot whale products, internal organs should not be eaten at all, blubber should not be eaten by women who plan to have children and whale meat should not be consumed more than twice a month.²⁹



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Mislabelling of whale products

Recent investigations have uncovered a trend for mislabelling small cetacean as whale products – potentially increasing the price ten-fold. DNA surveys by the Japanese government of meat sold in 42 of Japan’s 47 prefectures during 1999 and 2000 found that just over half of the products sold as ‘whale meat’ were minke whale from ‘scientific’ whaling. Most remaining samples were dolphins, porpoises and small whales.³⁰ This practice not only misleads the customer, but also increases the probability that consumers will inadvertently consume small cetaceans caught in Japanese coastal waters, which typically carry dangerously high pollutant burdens. The mislabelling of cetacean products is therefore a direct violation of the Food Sanitation law (*see below*), as it involves “falsely labelling . . . food . . . in a manner which may injure public health.” In addition, a new labelling system under Japan’s JAS Law now requires dolphin meat to be labelled as such, and apparently includes penalties that would apply to the mislabelling of dolphin meat as whale meat.³¹ However EIA investigations have demonstrated that the fraudulent sale of dolphin and porpoise as whale is still widespread in Japan. Of 17 ‘whale’ products purchased from Japanese supermarkets in March 2001, only five proved to be large whale products. DNA analyses revealed that the remaining samples came from a variety of small cetaceans, including Dall’s porpoise, pilot whale and bottlenose dolphin.³²

Above: Dall’s porpoise meat labelled as whale meat sashimi from a supermarket in Osaka.

Left: Pollutants accumulate in the internal organs of cetaceans, making them among the most dangerous products on supermarket shelves.



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Food Sanitation Law of Japan (Law no. 233, December 24, 1947, last amended May 2000)

Article 12 – “No person shall falsely or exaggeratedly label or advertise any food, additive, apparatus, or container/package in a manner which may injure public health.”



Drop in demand for cetacean products

Recent news reports suggest that consumer demand for cetacean products is decreasing. In 2001, 30% of minke whale stocks in Japan were not sold, marking it as the first year that wholesale markets have not sold all their whale meat since the start of Japan's 'scientific' whaling hunt in 1987.³³

EIA investigations have revealed that some retail outlets are becoming reluctant to sell cetacean products. Major supermarket chains were surveyed during 2001 and 2002 by Japanese researchers in order to determine the extent to which whale products are sold. The surveys revealed that many stores have stopped stocking cetacean products because of international criticism of Japan's whaling activities. For

example, six of 46 Ito-Yokado supermarket stores visited by EIA investigators revealed that they no longer sold whale meat "due to the issue of whaling". Several stores of other large supermarket chains such as JUSCO and Daiei have indicated that whale products were not stocked because of fears that whale meat is contaminated and unfit for human consumption.

Despite a growing public fear of the consequences of eating whale products, the Japanese government has spent millions of dollars of taxpayers' money on propaganda to encourage Japanese citizens to consume them. These costs are in addition to the estimated US\$320 million it has spent in its struggle to gain a voting majority at the IWC,³⁴ and the US\$37 million it spends annually on its scientific whaling programme.³⁵ This vast expenditure of taxpayers' money demonstrates how the Japanese government's intransigence on the whaling issue is to the detriment of the Japanese public.

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Above: Growing numbers of stores in Japan no longer stock whale products fearing the meat may be contaminated.

Conclusions and recommendations

- The pollutant levels found in cetacean products for sale in Japan present a real and potent danger to the health of human consumers.
- Many of the products labelled as 'whale' in Japanese supermarkets are actually small cetaceans hunted in coastal waters, and are therefore likely to carry higher contaminant burdens than the whale meat they are disguised as.
- The commercial hunting of both small and large cetacean species presently undertaken by Japan is unsustainable and threatens the existence of entire populations of whales, dolphins and porpoises.
- At present, whilst undoubtedly serious, the long-term effects of pollution on cetaceans are

not known. Without understanding the full extent of these threats, the impact on cetaceans of reopening commercial whaling cannot be predicted.

- The Government of Japan has continually defied the will of the International Whaling Commission, and clearly has no intention of abiding by future democratic decisions taken by the members of this convention.

The Environmental Investigation Agency therefore strongly urges Japanese citizens to refrain from consuming any cetacean products, and to put pressure on the Government of Japan to suspend all whale, dolphin and porpoise hunting in light of the detrimental effects on the consumers of cetacean products and on the world's whales, dolphins and porpoises.

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